

Amendments to the Figures

Please replace the original drawing sheets numbered 3 and 11 with the attached replacement sheets numbered 3 and 11.

5

REMARKS/ARGUMENTS

Mr. Earle Jennings, a patent agent associated with Mr. Smith, thanks the Examiner for the productive telephone conferences and for conversations regarding two
5 copending applications (SN 10/618,524, and SN 10/619,163) filed the same day, having the same inventors and assignee, in which this application was mentioned.

Remarks concerning the Figures:

10 The Examiner has objected to Figure 11C and pointed out a discrepancy between Figures 3B and 11B.

Figure 3B and Figure 11C have been amended to correct the discrepancy. Two sheets of marked up figures showing changes made are attached to this paper. The
15 Examiner is requested to remove the objection to Figure 11C.

Allowable Claims

The Examiner objected to Claims 7 to 10 and 20 to 21 as being allowable if
20 rewritten in independent form.

Claim 1 has been amended to include the limitations of Claim 7:

1. (currently amended) A mechanism controlling a voice
25 coil, comprising:
means for reducing a gain of a PES within a disk vibration frequency range; wherein said disk vibration frequency range includes frequencies between at least 1000 Herz and at most 3000 Herz; and
means for increasing said gain of said PES within a lower
30 frequency range; wherein said lower frequency range includes frequencies between at least 16 Herz and at most 800 Herz;

wherein said voice coil drives an actuator arm positioning a head gimbal assembly for a read-write head communicatively accessing a track on a rotating disk surface to generate said PES;

wherein said PES is a function of said head gimbal assembly responding to mechanical vibrations in said rotating disk surface by providing said read-write head with radial motion toward said track;

wherein said head gimbal assembly, comprises:

means for moving said slider parallel to said disk surface toward said track, when said disk surface is flat, by an actuator arm moving said slider by a lever action through a principal axis with said slider aligned at a bias angle;

means for radially moving said slider toward said track when said disk surface is bent, by said lever action through said principal axis at said bias angle causing said slider to move radially toward said track, when said disk surface is bent.

Applicant submits that this claim, as amended, is allowable, and allowance of this claim is respectfully requested.

Claims 2 to 6, and 8 to 11 are dependent upon the amended Claim 1, and are now also allowable.

Claim 12 has been amended to include the limitations of Claims 19 to 21:

12. (currently amended) A method of controlling a voice coil in a hard disk drive, comprising the steps of:

reducing a gain of a PES within a disk vibration frequency range; wherein said disk vibration frequency range includes frequencies between at least 1000 Herz and at most 3000 Herz; and

increasing said gain of said PES within a lower frequency range;
wherein said lower frequency range includes frequencies between at least
20 Herz and at most 800 Herz;

said head gimbal assembly responding to mechanical vibrations in
5 said rotating disk surface by providing said read-write head with radial
motion toward said track, further comprising the steps of:

moving said slider parallel to said disk surface toward said track,
when said disk surface is flat, by an actuator arm moving said slider by a
lever action through a principal axis with said slider aligned at a bias
10 angle, further comprising one of the steps of:

said actuator arm moving, through a flexure, said slider
mounted to said flexure at a second bias angle to said principal
axis; and

moving said actuator arm by a level action through a
15 principal axis with said slider parallel said disk surface and flexibly
mounted by said flexure at said second bias angle to said actuator
arm; and

radially moving said slider toward said track when said disk
surface is bent, by said lever action through said principal axis at said bias
20 angle causing said slider to move radially toward said track, when said
disk surface is bent, further comprising one of the steps of:

said flexure responding as said disk surface is bent, through
said second bias angle, causing said slider to move radially toward
said track; and

25 said flexure responding as said disk surface is bent through
said second bias angle causing said slider to radially move toward
said track;

wherein said voice coil drives an actuator arm positioning a said
head gimbal assembly for a read-write head communicatively accessing a
30 track on a said rotating disk surface to generate said PES; and

wherein said PES is a function of said head gimbal assembly responding to mechanical vibrations in said rotating disk surface by providing said read-write head with radial motion toward said track.

5 Applicant submits that this claim, as amended, is allowable, and allowance of this claim is respectfully requested.

Claims 13 to 18 are dependent upon Claim 12, and are now also allowable.

10 The Applicant believes that all the pending Claims are allowable, and that all objections to the application have been addressed. The amendments to the Claims do not introduce new matter, and are not meant to be taken as an agreement with the Examiner's arguments regarding the rejection of some of the Claims as initially filed.

15 Applicant invites the Examiner to contact Earle Jennings or Gregory Smith, as listed below, for a telephonic interview if so doing would expedite the prosecution of the application.

20 Very respectfully submitted,

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